



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0547; Product Identifier 2017-NM-091-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules. This proposed AD would require repetitive inspections of the existing clamshell coupling bonding wires, fuel couplings, and associated sleeves for certain criteria and replacement as necessary. This proposed AD would also require repetitive inspections of the fuel tube end ferrules, fuel component end ferrules, and ferrule o-ring flanges for damage and wear, and rework as necessary. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: thd.qseries@aero.bombardier.com; Internet: <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0547; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office

(telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Anthony Flores, Aerospace Engineer, Propulsion and Program Management Section, FAA, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7140; fax 847-294-7834; email: anthony.flores@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0547; Product Identifier 2017-NM-091-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-04R1, dated May 26, 2017 (referred to after

this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-400 series airplanes. The MCAI states:

Some operators have reported discoloration and corrosion of Hydraflow part number 14J26 fuel couplings. Removal of the couplings during scheduled maintenance inspection has also shown signs of wear on the fuel tube end ferrules, fuel component end ferrules, coupling bonding springs, and coupling sleeves. These issues affect the integrity of the electrical bonding paths throughout the fuel lines and components, which in turn may lead to lightning strike induced fuel tank ignition.

The initial issue of this [Canadian] AD mandated the [detailed] inspection [for wear or damage] and repair or replacement, as required, of affected fuel couplings and sleeves, fuel tubes, and fuel components, as well as the collection of wear data, to mitigate the risk of lightning strike induced fuel tank ignition.

Since the initial issue of this [Canadian] AD, Transport Canada has become aware that the compliance timeframe of Part I of the initial issue of this [Canadian] AD is not suitable for new aeroplanes entering into service from the production line. Revision 1 of this [Canadian] AD updates Part I of the initial issue of this [Canadian] AD accordingly, and mandates the [repetitive] inspection and repair or replacement, as required, of affected fuel couplings and sleeves, fuel tubes, and fuel components, as well as the collection of wear data, to mitigate the risk of lightning strike induced fuel tank ignition.

Required actions include replacement of clamshell coupling bonding wires, fuel couplings and associated sleeves and rework (repair, replace, or blend, as applicable) of fuel tube end ferrules, fuel component end ferrules, and ferrule o-ring flanges. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0547.

Related Service Information under 1 CFR part 51

Bombardier has issued Service Bulletin 84-28-20, Revision C, dated April 28, 2017. This service information describes procedures for inspections of the existing clamshell coupling bonding wires, fuel couplings, and associated sleeves for certain criteria (wear and damage, including discoloration, worn coating, scuffing and grooves) and replacement. This service information also describes procedures for inspections of the fuel tube end ferrules, fuel component end ferrules, and ferrule o-ring flanges for damage and wear, and rework. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

We estimate that this proposed AD affects 52 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	212 work-hours X \$85 per hour = \$18,020 per inspection cycle	\$0	\$18,020 per inspection cycle	\$937,040 per inspection cycle
Reporting	1 work hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$4,420 per inspection cycle

We estimate the following costs to do any necessary replacements or rework that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements or rework:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Rework/Replacement	174 work-hours X \$85 per hour = \$14,790	\$2,000	\$16,790

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this NPRM is 2120-0056. The paperwork cost associated with this NPRM has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as

completing and reviewing the collection of information. Therefore, all reporting associated with this NPRM is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive

Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2018-0547; Product Identifier 2017-NM-091-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model DHC-8-400, -401 and -402 airplanes, certificated in any category, manufacturer serial numbers 4001, 4003, and subsequent.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel

(e) Reason

This AD was prompted by reports of wear on fuel couplings, bonding springs, and sleeves as well as fuel tube end ferrules and fuel component end ferrules. We are issuing this AD to address such wear, which could reduce the integrity of the electrical bonding paths through the fuel line and components, and ultimately lead to fuel tank ignition in the event of a lightning strike.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Initial Inspection Compliance Times

At the applicable times specified in paragraph (g)(1) or (g)(2) of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD.

(1) For all airplanes except those identified in paragraph (g)(2) of this AD: Within 6,000 flight hours or 36 months, whichever occurs first after the effective date of this AD.

(2) For new airplanes with an original airworthiness certificate or original export certificate of airworthiness issued on or after the effective date of this AD: Within 6,000 flight hours or 36 months, whichever occurs first after the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness.

(h) Repetitive Inspections and Corrective Actions

At the applicable times specified in paragraph (g)(1) or (g)(2) of this AD, do the actions specified in paragraphs (h)(1) and (h)(2) of this AD. Repeat the actions thereafter at intervals not to exceed 6,000 flight hours or 36 months, whichever occurs first.

(1) Do a detailed inspection of the existing clamshell coupling bonding wires, fuel couplings, and associated sleeves for criteria, as identified in, and in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017. If any conditions are found meeting the criteria specified in Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017, before further flight, replace affected parts with new couplings and sleeves of the same part number, in

accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017.

(2) Do a detailed inspection of the fuel tube end ferrules, fuel component end ferrules, and ferrule o-ring flanges for damage and wear, and rework (repair, replace, or blend, as applicable), in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017.

(i) Reporting

At the applicable time specified in paragraph (i)(1) or (i)(2) of this AD: Submit a report of the findings (including no findings) of the initial and repetitive inspections required by paragraph (h) of this AD by completing Tables 1 through 5 of Bombardier Service Bulletin 84-28-20, Revision C, dated April 28, 2017, and submitting them to Bombardier, Inc. Q-Series Action Center; telephone: 1-844-272-2720; email: thd.qseries@aero.bombardier.com.

(1) If the inspection was done on or after the effective date of this AD, submit the report within 30 days after the completion of the inspection.

(2) If the inspection was done before the effective date of this AD, submit the report within 30 days after the effective date of this AD.

(j) Credit for Previous Actions

(1) This paragraph provides credit for the actions required by paragraphs (h)(1) and (h)(2) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraph (j)(1)(i) or (j)(1)(ii) of this AD.

(i) Bombardier Service Bulletin 84-28-20, Revision A, dated December 14, 2016.

(ii) Bombardier Service Bulletin 84-28-20, Revision B, dated February 13, 2017.

(2) This paragraph provides credit for the initial inspections required by paragraphs (h)(1) and (h)(2) of this AD and the initial reporting required by paragraph (i) of this AD, for Bombardier, Inc., Model DHC-8-402 airplane, manufacturer serial number 4164, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-28-20, dated September 30, 2016.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil

Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) Reporting Requirements: A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(I) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-04R1, dated May 26, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0547.

(2) For more information about this AD, contact Anthony Flores, Aerospace Engineer, Propulsion and Program Management Section, FAA, Chicago ACO Branch, Room 107, 2300 East Devon Avenue, Des Plaines, IL 60018; telephone 847-294-7140; fax 847-294-7834; email: anthony.flores@faa.gov.

(3) For information about AMOCs, contact Joe Catanzaro, Aerospace Engineer, Propulsion Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7366; fax: 516-794-5531; email: joseph.catanzaro@faa.gov.

(4) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: thd.qseries@aero.bombardier.com; Internet: <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on June 12, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2018-13477 Filed: 7/5/2018 8:45 am; Publication Date: 7/6/2018]